

IN THE CLAIMS

Claim 1 (withdrawn) An isolated polynucleotide comprising a polynucleotide which is at least 70% identical to a member selected from the group consisting of:

(a) a polynucleotide encoding a polypeptide, or a biologically or immunologically active fragment thereof, comprising the amino acid sequence set forth in Figure 2 (SEQ ID NO: 2) and

(b) a polynucleotide which is complementary to the polynucleotide of (a).

Claim 2 (withdrawn) The polynucleotide of Claim 1 wherein the polynucleotide is DNA.

Claim 3 (withdrawn) The polynucleotide of Claim 1 wherein the polynucleotide is RNA.

01 Claim 4 (withdrawn) The polynucleotide of Claim 1 wherein the polynucleotide is genomic DNA.

Claim 5 (withdrawn) The polynucleotide of Claim 2 wherein the polynucleotide encodes the polypeptide comprising amino acids 1 to 553 as set forth in Figure 2 (SEQ ID NO: 2).

Claim 6 (withdrawn) The polynucleotide of Claim 1 wherein the polynucleotide comprises the sequence as set forth in Figure 1 (SEQ ID NO: 1) from nucleotide 1 to nucleotide 3320.

Claim 7 (withdrawn) The polynucleotide of Claim 1 wherein the polynucleotide comprises the sequence as set forth in Figure 1 (SEQ ID NO: 1) from nucleotide 282 to

nucleotide 1943.

Claim 8 (withdrawn) A vector comprising the polynucleotide of Claim 2.

Claim 9 (withdrawn) A host cell comprising the vector of Claim 8.

Claim 10 (withdrawn) A method of producing a polypeptide comprising expressing from the host cell of Claim 9 the polypeptide encoded by the polynucleotide.

Claim 11 (withdrawn) The method of Claim 10 wherein the polypeptide comprises amino acid 1 to amino acid 553 as set forth in Figure 2 (SEQ ID NO: 2).

Claim 12 (withdrawn) A method of producing a polypeptide wherein the polypeptide comprises the amino acid sequence shown in Figure 2 (SEQ ID NO: 2), the method comprising the steps of:

- CI
- (a) culturing the host cell of Claim 9 under conditions whereby the polypeptide is expressed; and
 - (b) recovering the polypeptide from the culture.

Claim 13 (withdrawn) A method for producing a cell which expresses a polypeptide comprising genetically engineering the cell with the vector of Claim 8.

Claim 14 (withdrawn) A polypeptide comprising a member selected from the group consisting of:

- (a) a polypeptide, or a biologically or immunologically active fragment thereof, comprising the amino acid sequence as set forth in Figure 2 (SEQ ID NO: 2); and
- (b) a polypeptide which is at least 70% identical to the polypeptide of (a).

Claim 15 (withdrawn) The polypeptide of Claim 14 wherein the polypeptide comprises amino acids 1 to 553 as set forth in Figure 2 (SEQ ID NO: 2).

Claim 16 (withdrawn) An isolated antibody, or antibody fragment, which specifically binds to a polypeptide comprising a member selected from the group consisting of:

- (a) a polypeptide, or a biologically or immunologically active fragment thereof, comprising the amino acid sequence as set forth in Figure 2 (SEQ ID NO: 2);
- (b) a polypeptide comprising amino acid 181 to amino acid 197 as set forth in Figure 2 (SEQ ID NO: 23);
- (c) a polypeptide comprising amino acid 225 to amino acid 240 as set forth in Figure 2 (SEQ ID NO: 26);
- (d) a polypeptide comprising amino acid 294 to amino acid 322 as set forth in Figure 2 (SEQ ID NO: 25);
- (e) a polypeptide comprising amino acid 406 to amino acid 431 as set forth in Figure 2 (SEQ ID NO: 21);
- (f) a polypeptide comprising amino acid 544 to amino acid 553 as set forth in Figure 2 (SEQ ID NO: 24); and
- (g) a polypeptide which is at least 70% identical to the polypeptide of (a), (b), (c), (d), (e), or (f).

Claim 17 (withdrawn) The antibody of Claim 16, wherein the antibody specifically binds to the amino acid sequence IDWDT SALAPYLG TQEE (SEQ ID NO: 23).

Claim 18 (withdrawn) The antibody of Claim 16 wherein the antibody specifically binds to the amino acid sequence PTEPAEGLSAPSLSPH (SEQ ID NO: 26).

Claim 19 (withdrawn) The antibody of Claim 16, wherein the antibody specifically binds to the amino acid sequence DFGEGLYQGVPRAEGTEARRHYDEGVR (SEQ ID NO: 25).

Claim 20 (withdrawn) The antibody of Claim 16, wherein the antibody specifically binds to the amino acid sequence EKQVFLPKYRGDTGGASSEDLSMTSF (SEQ ID NO: 21).

Claim 21 (withdrawn) The antibody of Claim 16, wherein the antibody specifically binds to the amino acid sequence DKSDLAKYSA (SEQ ID NO: 24).

Claim 22 (withdrawn) The antibody of Claim 16, wherein the antibody is a polyclonal antibody.

Claim 23 (withdrawn) The antibody of Claim 16, wherein the antibody is a monoclonal antibody.

Claim 24 (withdrawn) An immunoconjugate comprising an isolated antibody, or antibody fragment, which specifically binds to a polypeptide comprising a member selected from the group consisting of:

- CI
at
- (a) a polypeptide, or a biologically or immunologically active fragment thereof, comprising the amino acid sequence as set forth in Figure 2 (SEQ ID NO: 2);
 - (b) a polypeptide comprising amino acid 181 to amino acid 197 as set forth in Figure 2 (SEQ ID NO: 23);
 - (c) a polypeptide comprising amino acid 225 to amino acid 240 as set forth in Figure 2 (SEQ ID NO: 26);
 - (d) a polypeptide comprising amino acid 294 to amino acid 322 as set forth in Figure 2 (SEQ ID NO: 25);
 - (e) a polypeptide comprising amino acid 406 to amino acid 431 as set forth in Figure 2 (SEQ ID NO: 21);
 - (f) a polypeptide comprising amino acid 544 to amino acid 553 as set forth in Figure 2 (SEQ ID NO: 24); and
 - (g) a polypeptide which is at least 70% identical to the polypeptide of (a), (b), (c), (d), (e) or (f)

conjugated to a therapeutic agent.

Claim 25 (withdrawn) The immunoconjugate of Claim 24, wherein the therapeutic agent is a cytotoxic agent.

Claim 26 (withdrawn) The immunoconjugate of Claim 25, wherein the cytotoxic agent is selected from the group consisting of ricin, doxorubicin, daunorubicin, taxol, ethidium bromide, mitomycin, etoposide, tenoposide, vincristine, vinblastine, colchicine, dihydroxy anthracin dione, actinomycin D, diphtheria toxin, *Pseudomonas* exotoxin (PE) A, PE40, ricin, abrin, glucocorticoid and radioisotopes.

Claim 27 (withdrawn) The immunoconjugate of Claim 24, wherein the antibody fragments are selected from the group consisting of Fv, F(ab') and F(ab')₂ fragments.

CI
ut

Claim 28 (currently amended) A method for selectively destroying a prostate-derived cell expressing a PROST 03 polypeptide having the amino acid sequence of SEQ ID NO: 2, wherein the method comprises reacting an immunoconjugate comprising an isolated monoclonal antibody, or antibody fragment thereof, which specifically binds to ~~one or more~~ an epitopes present in the PROST 03 polypeptide conjugated to a therapeutic agent with the cell, so that the therapeutic agent of the immunoconjugate can destroy the cell. *selective*

Claim 29 (currently amended) A method of treating prostate cancer in a human patient, wherein the method comprises administering to the patient a therapeutically effective amount of an immunoconjugate comprising an isolated monoclonal antibody, or antibody fragment thereof, which specifically binds to ~~one or more~~ an epitopes present in a PROST 03 polypeptide having the amino acid sequence of SEQ ID NO: 2, conjugated to a therapeutic agent.

Claim 30 (withdrawn) A method of treating a disease-state in a human patient which

disease-state is associated with inappropriate expression of PROST 03 and wherein the patient is in need of decreased levels of a polypeptide comprising a member selected from the group consisting of:

- (a) a polypeptide, or a biologically or immunologically active fragment thereof, comprising the amino acid sequence as set forth in Figure 2 (SEQ ID NO: 2); and
- (c) a polypeptide which is at least 70% identical to the polypeptide of (a) and wherein the method comprises administering to the patient a therapeutically effective amount of a ribozyme which specifically cleaves RNA encoding the polypeptide.

Claim 31 (withdrawn) A method of treating a disease-state in a human patient which disease-state is associated with inappropriate expression of PROST 03 and wherein the patient is in need of decreased levels of a polypeptide having the amino acid sequence as set forth in Figure 2 (SEQ ID NO: 2), and wherein the method comprises administering to the patient a therapeutically effective amount of a polynucleotide which is complementary to a polynucleotide encoding the polypeptide or a portion thereof.

CL
Claim 32 (withdrawn) A diagnostic method wherein the method comprises analyzing a sample derived from a host for the presence of a polypeptide comprising a member selected from the group consisting of:

- (a) a polypeptide, or a biologically or immunologically active fragment thereof, comprising the amino acid sequence as set forth in Figure 2 (SEQ ID NO: 2);
- (b) a polypeptide comprising amino acid 181 to amino acid 197 as set forth in Figure 2 (SEQ ID NO: 23);
- (c) a polypeptide comprising amino acid 225 to amino acid 240 as set forth in Figure 2 (SEQ ID NO: 26);
- (d) a polypeptide comprising amino acid 294 to amino acid 322 as set forth in Figure 2 (SEQ ID NO: 25);
- (e) a polypeptide comprising amino acid 406 to amino acid 431 as set forth in Figure 2 (SEQ ID NO: 21);

(f) a polypeptide comprising amino acid 544 to amino acid 553 as set forth in Figure 2 (SEQ ID NO: 24); and

(g) a polypeptide which is at least 70% identical to the polypeptide of (a), (b), (c), (d), (e) or (f).

Claim 33 (withdrawn) The method of Claim 32, wherein analyzing comprises contacting the sample with the antibody or antibody fragment of Claim 16, which specifically binds to the polypeptide and detecting binding of the antibody to the polypeptide in the sample.

Claim 34 (withdrawn) A diagnostic method wherein the method comprises analyzing for the presence of a polynucleotide comprising a polynucleotide which is at least 70% identical to a member selected from the group consisting of:

(a) a polynucleotide encoding a polypeptide, or a biologically or immunologically active fragment thereof, comprising the amino acid sequence set forth in Figure 2 (SEQ ID NO: 2); and

(d) polynucleotide which is complementary to the polynucleotide of (a).

Claim 35 (withdrawn) A method for diagnosing in a subject a metastasis associated with the polypeptide of Figure 2 (SEQ ID NO: 2) comprising:

- (a) obtaining from the subject a tissue and/or fluid sample;
- (b) contacting the sample with the antibody of Claim 16; and
- (c) detecting the binding of the antibody with the polypeptide in the sample.

Claim 36 (withdrawn) The method of Claim 35, wherein the antibody is labeled so as to directly or indirectly produce a detectable signal with a compound selected from the group consisting of a radiolabel, an enzyme, a chromophore and a fluorescer.

Claim 37 (withdrawn) A vaccine comprising an amount of a polypeptide, or a

biologically or immunologically active fragment thereof, comprising the amino acid sequence as set forth in Figure 2 (SEQ ID NO: 2), dispersed in a physiologically acceptable, nontoxic vehicle, which amount is effective to induce an immune response in a human against prostate cancer associated with PROST 03 expression.

CI
Claim 38 (withdrawn) A vaccine comprising a DNA sequence encoding a polypeptide, or a biologically or immunologically active fragment thereof, comprising the amino acid sequence as set forth in Figure 2 (SEQ ID NO: 2), wherein said DNA is operably linked to a promoter, and where, following administration in vivo into a tissue of a mammal, sufficient uptake of said DNA into cells occurs, and sufficient expression of the polypeptide or fragment occurs, so as to produce an immunogenic amount of said polypeptide or fragment, which amount is effective to immunize a human against prostate cancer associated with PROST 03 expression.
